



Carbon Emissions Report 2020–2021

November 2022

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About this document

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Executive Summary

0.1 Introduction

Lambeth was the first London borough to declare a climate emergency in 2019. As a response to that declaration, the council is working towards achieving net zero compatibility in its own estate by 2030 and is collaborating with partners in the borough to achieve net zero compatibility across Lambeth by the same date.

This report, published annually, sets out carbon emissions within the council's estate, and the wider borough.

0.2 What is the council doing?

The council has taken significant steps to tackle the climate emergency. The council has delivered one of the largest school retrofitting programmes in London, has piloted deep retrofits in our housing stock, and continues to develop plans and deliver projects to decarbonise buildings across its portfolio. The council is pursuing the electrification of its waste fleet and is on track to have a fully electric/zero carbon fleet by 2030. Through Low Traffic Neighbourhoods, the School

Streets Programme, and recently adopted Kerbside Strategy, the council is pursuing radical measures to repurpose our streets to serve communities over cars, reducing emissions while improving quality of life. The council has run an independent Citizens Assembly on the climate emergency, and co-ordinated the launch of a borough-wide Climate Action Plan, owned by stakeholders across Lambeth. These actions are just a start, and the council aims to ramp up action over the coming years.

0.3 Challenges looking forward

The scale of capital investment required to decarbonise Lambeth buildings, in particular the council's residential estate, significantly exceeds the council's existing capital investment budgets and the sums currently being made available by central government.

Capital costs are particularly high as Lambeth is a historic borough, with over half of heat demand from buildings that were constructed before the 1930s. Older, more poorly insulated buildings present higher costs, technical, and conservation challenges to retrofit. Many of the schools, libraries, and other public buildings in Lambeth present similar challenges.

Some decarbonisation measures pay for themselves in the long term through reduced costs on energy bills, such as solar photovoltaic panels (solar pv) and light emitting diode bulbs (LED bulbs), and the council is exploring options to invest in such measures. However, heat decarbonisation measures like air source heat pumps do not currently reduce energy bills as electricity has higher unit costs than gas. Older buildings also require more costly fabric energy efficiency measures, which take longer to payback. More support from central government to finance the upfront costs is therefore essential to reach net zero compatibility, as well as action to bring down the cost of renewably sourced electricity.

Switching from gas to electricity for heating, and from petrol and diesel to electricity for transport, will significantly increase local electricity consumption. Ensuring that this demand can be met, and that electricity can flow back into the grid from local renewable generation and electric vehicles, will require investment to increase the capacity of the local power distribution network, as well as action to reduce peak demand for electricity. Without this investment, grid constraints will present a bottleneck to local decarbonisation. Action at the national, regional, and local level is therefore required to ensure that this investment occurs at

the necessary pace. At the local level, Lambeth council is building the evidence base for this action and bringing stakeholders together through a local area energy planning process.

0.4 Lambeth borough carbon emissions

Carbon emissions in Lambeth are falling. Since 2005, Lambeth's borough-wide carbon emissions have fallen by a year on-year average of 3.3%. Continued at this rate, emissions would be approximately 58% below 2005 levels by 2030, and approximately 78% below 2005 levels by 2050.

In 2019, emissions for energy use in buildings and transport in Lambeth were 876,218 tonnes. This is 4.6% lower than in 2018 (918,250 tonnes CO₂). This equates to 2.7 tonnes per person, lower than both the London average of 3.2 tonnes per person and the national average of 5.5 tonnes per person.

However, despite this progress, further work is needed to place the borough of Lambeth on a trajectory to reach net zero emissions by 2030.

In 2019 energy use in the home remained the largest source of emissions in Lambeth, and a larger share of the total (41%) than the UK-wide average (27%). Within Lambeth homes, using

gas for space and water heating was by far the largest source of emissions. Significant investment will be required to improve the energy efficiency of buildings in Lambeth, and to change the way buildings are heated, in order to make progress towards net zero emissions. Transport emissions are a smaller share of Lambeth's total (27%) than the UK-wide average (36%), which reflects lower levels of car ownership, higher levels of public transport provision, and its inner London location. The vast majority of Lambeth's reported transport emissions are from on-road petrol and diesel vehicles. Aviation emissions (flights taken by Lambeth residents out-of-borough) are not reflected in government statistics for local authority emissions. However, if aviation emissions were included, they would be a substantial portion of Lambeth's emissions, estimated by one source to be roughly equivalent to on-road emissions.

0.5 Lambeth Council carbon emissions

Lambeth Council's carbon emissions are falling. Between 2019–20 and 2020–21, emissions fell by almost 10% across the council's estate. While much of this fall was driven by a reduction in building use associated with lockdown, it accelerates a decade long trend of falling emissions driven by reduced carbon intensity of

grid electricity and increased energy efficiency in council buildings and vehicles.

In March 2020, the UK was put into a nation-wide lockdown in order to curb outbreaks of COVID-19. This meant that schools shut, non-essential shops closed, and the population was asked to work from home where possible and to only leave our houses for exercise and essentials. We experienced a prolonged period of entering and exiting national and regional lockdowns, with the aim of managing the pandemic and protecting citizens, and this inevitably created significant disruption to usual operations at all organisations including Lambeth Council. Building closures led to a reduction in energy use which contributed to a reduction in carbon emissions compared to a normal year.

From April 2020 to March 2021, reported greenhouse gas emissions for council-operated assets were 14,388.1 tonnes, or approximately 1.6% of Lambeth borough emissions. Schools were the largest source of emissions (40% of council total), followed by communal areas of housing estates. Emissions from council-operated assets fell by 9.7% in 2020–21, compared to 2019–20.

Lambeth Council does not have data on energy used within council homes on individual heating

systems (those not heated by a communal heating system). However, we estimate that including council homes within the council's carbon footprint would significantly increase the council's carbon footprint to approximately 78,000 tonnes, or 8.9% of Lambeth borough emissions.

The council has adopted a requirement for new contractors to report on carbon emissions from delivery of their contracts with Lambeth. However, a reporting system is not yet operational. Supply chain emissions will, therefore, be captured in future years' reporting cycles.

0.6 Methodology and data limitations

This report groups carbon emissions associated with Lambeth Council's activities into five main categories: in-house council operations, outsourced council operations, council leased assets, council purchases, and council decision making.

While reporting on emissions from in-house council operations is relatively well-developed, it remains incomplete, and it has only been possible to present emissions data for 82% of schools. As noted above, data on the remaining four categories is incomplete, and this report presents

case studies for these categories where data is available. The council is committed to improving its monitoring, reporting and mitigation of these emissions categories in future years, starting with emissions from outsourced council operations, and further information is set out in [Annex 3](#) on these plans. However, it should be noted that reporting on the most indirect emissions sources (e.g., those associated with council decision making) is likely to remain a methodological challenge.

The Greenhouse Gas Protocol (GHG Protocol) provides a standard methodology for businesses and cities to report their emissions. This approach categorises emissions into "scope 1" (emissions released on-site from energy use, usually gas or transport fuel) "scope 2" (emissions released offsite from energy use, typically from generating electricity) and "scope 3" (indirect emissions from everything else an organisation purchases or sells). This approach has been adopted by a growing number of local authorities and is presented in [Annex 2](#) to this report. However, the "scopes" approach does not fully capture the range of emissions sources over which local authorities have varying levels of influence. Hence the main body of this report follows the approach described above, rather than the GHG Protocol methodology.

Borough-wide emissions are taken primarily from UK local authority national statistics, published by the Department of Energy Security and Net Zero (DESNZ). DESNZ provides sectoral emissions data, but not a detailed breakdown of emissions sources at the borough level, so is presented selectively here. More information on methodology is given in [Annex 3: Methodology and limitations](#).

1 Lambeth Borough Emissions



Lambeth Borough Emissions

1.1 Snapshot of Lambeth borough emissions

876 ktCO₂

In 2019, carbon emissions for the borough were **876,218 tonnes (876 ktCO₂)**.[†] This is approximately 0.3% of the UK's entire carbon emissions.



Energy use in the home contributes 41% of emissions in Lambeth. Total domestic emissions have **decreased by 2.8%** since 2018 and represent a slightly lower proportion of the total compared with 2018.



Energy used in non-domestic buildings and facilities contributes 31.9% of emissions.

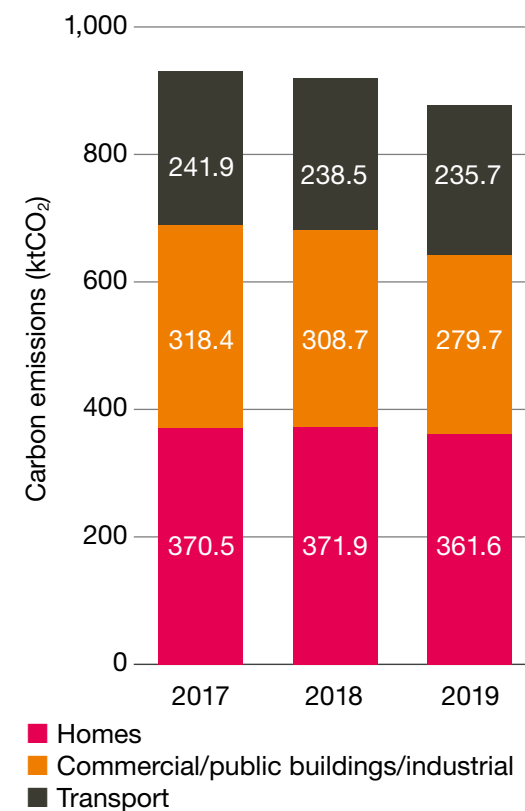


Total emissions for Lambeth borough were almost **5% lower than in 2018**.



Carbon emissions per person in Lambeth in 2019 were **2.7 tonnes**, which is lower than the London average of 3.2 tonnes per person and the national average of 5.5 tonnes per person. There has been limited change from 2018, on average.

Figure 1: Lambeth borough CO₂ emissions, 2017 to 2019. Source: DESNZ (May 2022)



Note that the above figures, published by the Department for Energy Security and Net Zero (DESNZ), relate to emissions from energy consumption (largely gas, electricity and petrol/diesel) in Lambeth. They do not include emissions from other goods and services consumed by Lambeth residents, such as flights or food and clothing.

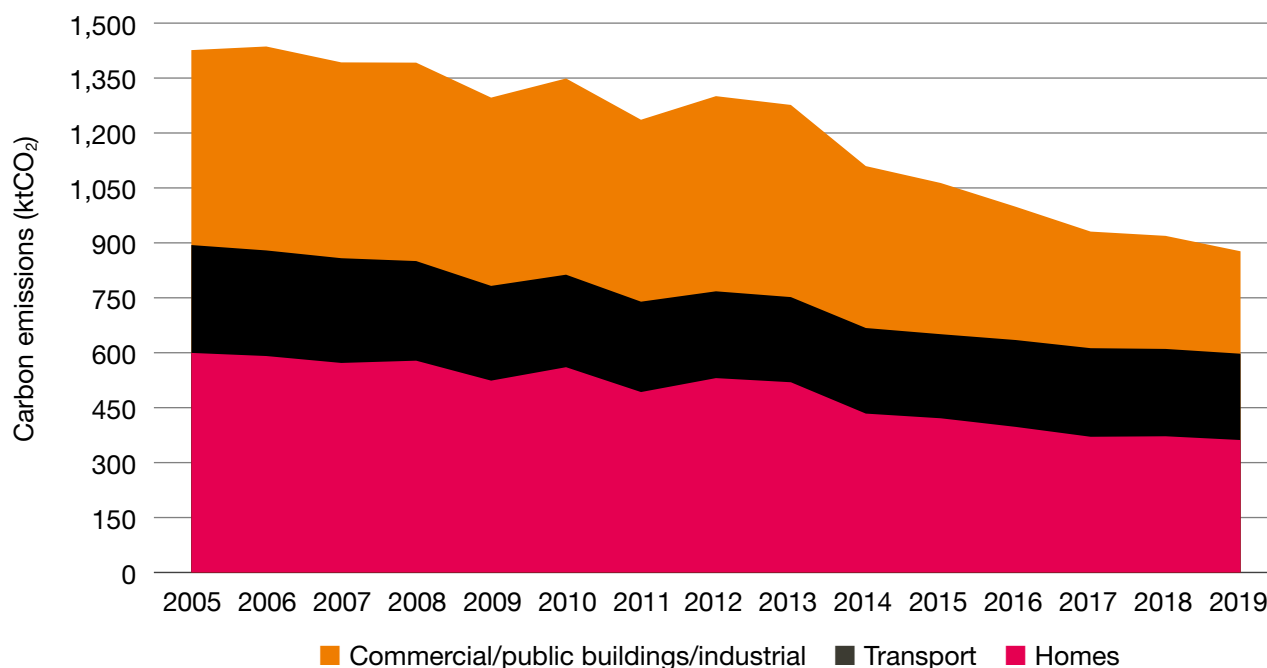
1.2 Lambeth borough emissions: buildings

A more detailed inventory of local area emissions is published each year by SCATTER, a tool developed in collaboration by Nottingham City Council, the Greater Manchester Combined Authorities, the Tyndall Centre and Anthesis. Due to differences in methodology, the figures differ slightly from those published by DESNZ.

SCATTER estimates emissions from buildings according to the fuel type (e.g. gas or electricity) and the purpose of energy usage. As with the DESNZ data, energy use in the home is the

single largest source of emissions in Lambeth. As illustrated by [Figure 2](#), the majority of these emissions (66%) are from gas used to heat space and water. Electricity use for lighting, appliances and cooking is responsible for 25% of domestic emissions. This illustrates that Lambeth must prioritise improving the energy efficiency of its building stock, so that our homes can reach a comfortable level of heat with less energy, and shift to low carbon alternatives to gas like electric heat pumps and solar thermal. Generation of local renewable electricity will help to meet energy demand without increasing carbon emissions.

Figure 2: Lambeth CO₂ emissions from 2005–2019, broken down by source sector.



BOX 1: LAMBETH EMISSIONS IN CONTEXT



Lambeth borough's carbon emissions are larger than the national emissions of some countries, such as Burundi, Belize or Somalia. Lambeth's population is 2-3% of that of these countries.ⁱⁱ



Per person emissions in Lambeth of 2.7 tonnes are equivalent to the emissions released from one return trip flight from London to Tokyo.ⁱⁱⁱ



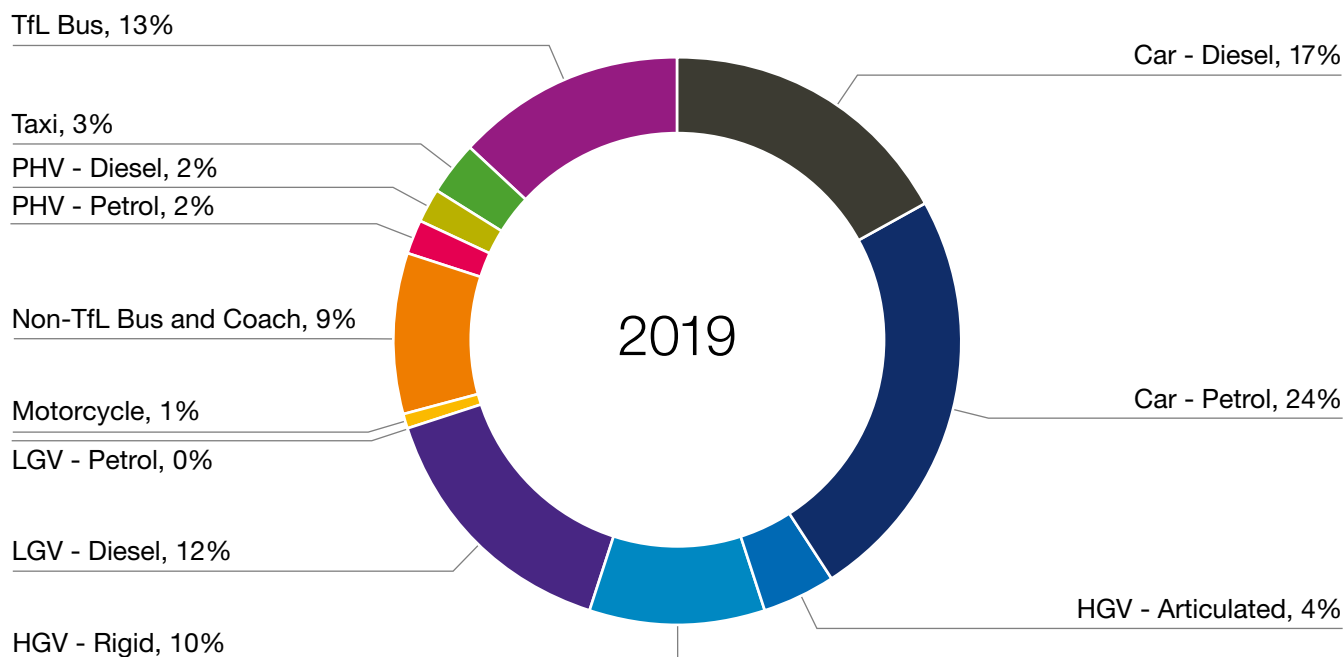
One tonne of carbon dioxide is difficult to picture, but if it were contained in a spherical balloon, the balloon would be 10 meters across – more than twice the height of a Routemaster bus.



One tonne of carbon is released by driving the average passenger car 8,500 kilometres,^{iv} or in the process of producing 17 kg of beef, 50 kg of cheese or 2,500 kg of potatoes.^v

Figure 3: Breakdown of on-road carbon emissions by vehicle type in Lambeth for 2019.

Source: LAEI (2019)



BOX 2: UPGRADING THE COLDEST HOMES IN THE BOROUGH

The London Borough of Lambeth was awarded, in coalition with other London boroughs, more than £40m as part of the Green Homes Grant: Local Authority Delivery (GHG:LAD) scheme funded by the Department for Energy Security and Net Zero (DESNZ) from 2021 to 2023. The funding is awarded to support councils to retrofit low-EPC homes and is expected to allow upgrades of thousands of properties across the participating boroughs. For Lambeth, we have more than 300 properties in the pipeline, and this number will increase as delivery proceeds. The households who benefit from the GHG:LAD will live in a property which is warmer, less draughty, cheaper to run and less prone to damp and mould, as well as reducing carbon emissions by decreasing the amount of gas needed to heat the home. To reach net zero, all properties in the borough will be required to be retrofitted to higher energy efficiency standards and with electric heating systems, and at present, it is not clear how this will be financed.

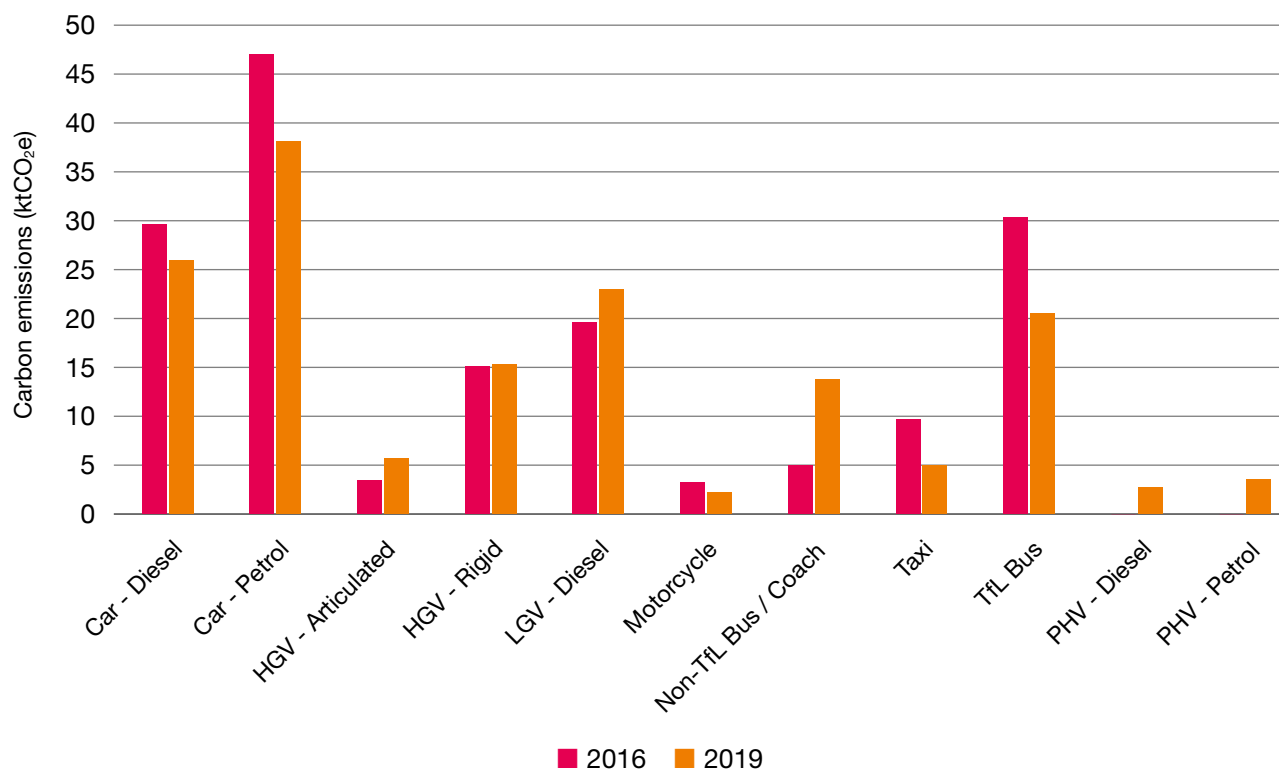
1.3 Lambeth borough emissions: transport

According to DESNZ data, transport emissions in Lambeth for 2019 were approximately 236 ktCO₂. This is a decrease of 1.2% from 2018. [DESNZ update previous years with each publication]. This figure largely comprises road transport split between A roads (approximately 49% of total emissions) and minor roads (approximately 51% of total emissions). Emissions from rail are negligible. Unlike figures published by DESNZ, SCATTER data includes transport emissions outside the borough from flights taken by Lambeth residents.¹ According to SCATTER, **aviation emissions are substantial, and only marginally lower than road transport emissions.**

The most recent data on the breakdown of road transport carbon emissions in Lambeth by vehicle type is from 2019 analysis by the London Atmospheric Emissions Inventory (LAEI). As illustrated by [Figure 3](#), cars and taxis were the source of over half of all emissions.

Figure 4: Comparison of total carbon emissions by on-road vehicle type from 2016 and 2019.

Source: LAEI (2019)



¹ This is calculated by assuming that emissions from international flights into and out of the UK are uniformly distributed across the whole population. For more information see [Annex 3](#).

1.4 National and London-wide comparison

Lambeth's emissions profile differs from the UK-wide average. As illustrated by Figure 5, emissions from transport make up a smaller proportion of total emissions in Lambeth compared with the London and national averages. Emissions from housing make up a greater proportion of the total (41%) when compared with the national average (27%).

Lower relative transport emissions in Lambeth reflects the relatively low levels of car ownership, and higher levels of public transport provision compared to the UK average,^{vi} as is typical of an inner London borough.^{vii} Higher relative domestic emissions in Lambeth reflect below average energy efficiency levels of existing houses and flats compared to the national average, and the fact that Lambeth's housing stock is significantly older (61% pre-1945)^{viii} than the national average (35% pre-1945).^{ix} Older buildings are typically less energy-efficient due to features such as solid wall construction, single glazing, higher levels of uncontrolled ventilation and poor condition (e.g. damp walls). They require a 'whole-building' approach to energy efficiency retrofit, and present additional challenges related to heritage preservation, all of which increase the costs and complexity of retrofitting. This underlines the challenge that Lambeth faces to decarbonise energy use in the home.

As illustrated by Figure 6, emissions per person in Lambeth are towards the lower end of inner London boroughs. Total emissions per person are similar to those in its immediate Inner London neighbours, Southwark and Wandsworth.

Figure 5: Lambeth borough comparison with UK-wide emissions breakdown for 2019.

Source: DESNZ (May 2022)

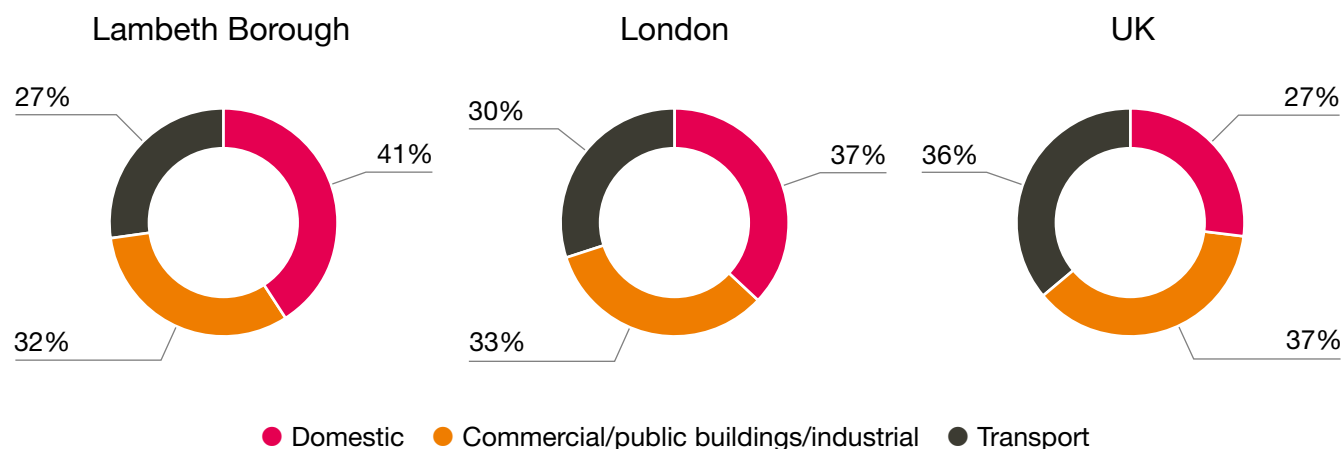
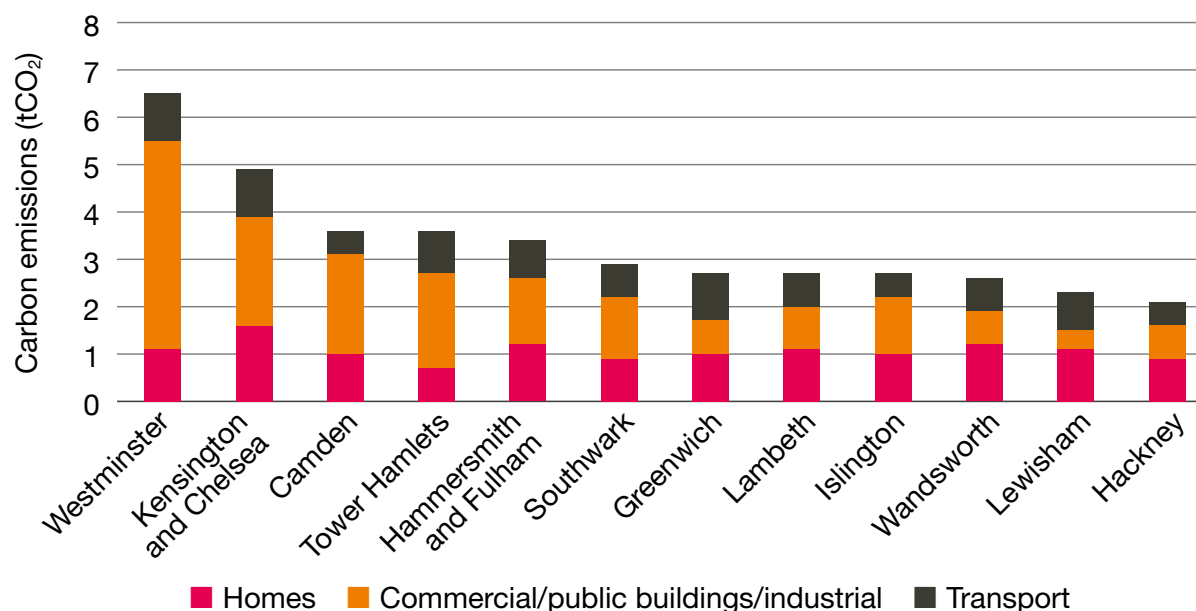


Figure 6: Comparison of per person emissions in Lambeth with inner London boroughs for 2019.



1.5 Emissions trajectory

Since 2005, Lambeth’s borough-wide carbon emissions have fallen by a year-on-year average of 3.3%. Continued at this rate, emissions would be approximately 58% below 2005 levels by 2030, and approximately 78% below 2005 levels by 2050. The Committee on Climate Change estimate that a reduction of over 85% on 2005 greenhouse gas emissions levels will be necessary for the UK as a whole to reach “net-zero” emissions.^x

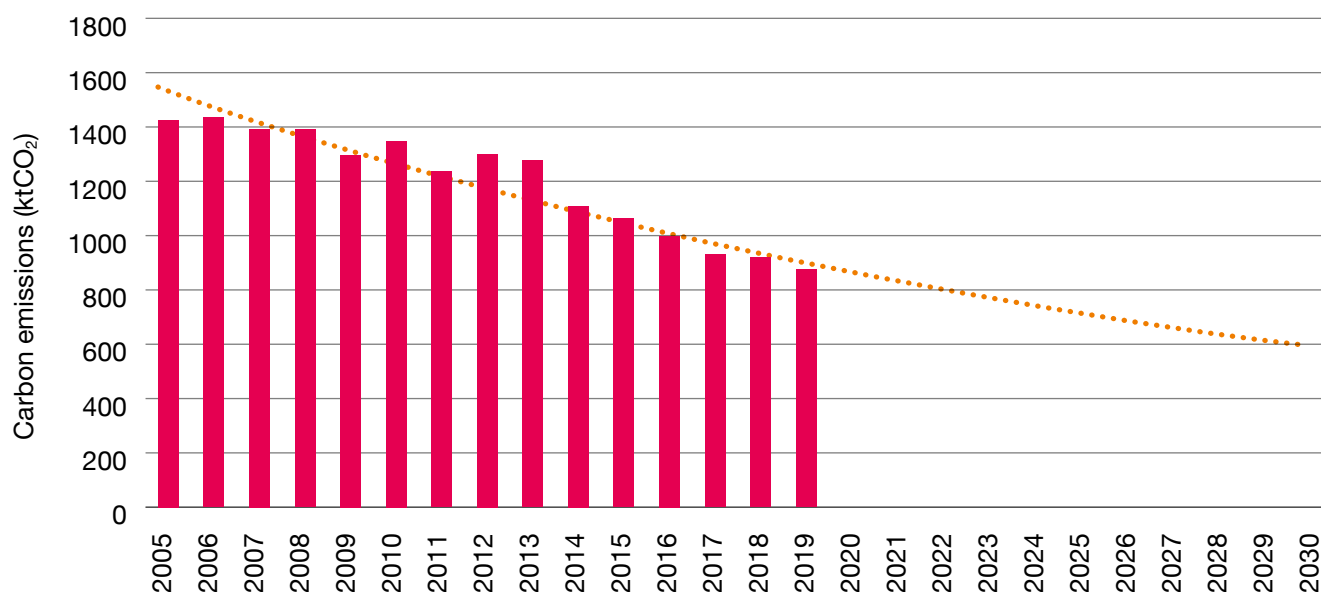
To date, reductions in Lambeth’s emissions have been driven by the decarbonisation of the electricity grid, both through the removal of coal

power and the expansion of renewable energy at the national level, by reduced fuel consumption by businesses and by reduced electricity use.^{xi}

Decarbonising heating systems, which are currently reliant on natural gas, and transport systems, which are currently reliant on petrol and diesel, will require substantial levels of additional investment and changes to policy. As the Committee on Climate Change has noted in their latest progress report to Parliament, “there are still significant gaps in ambition” of national policies required to drive emissions reductions.^{xii}

Figure 7: Lambeth borough carbon emissions 2005 – 2019, with trend line projection to 2030.

Source: DESNZ (May 2022)



BOX 3: CLIMATE ACTION PLAN

Lambeth’s Climate Action Plan was released in Spring 2022. This CAP is a collaborative plan, built upon the 13 recommendations of Lambeth’s Citizens’ Assembly on the Climate Crisis and the key principles they set out. It brought together many of our major institutions to form Lambeth Climate Partnership, focusing on climate action and equitable outcomes. This partnership comprises 11 key institutions, employing 56,000 employees, who have voluntarily signed up to take climate action collectively in Lambeth. There are 20 ambitious goals across 5 themed areas in which everyone in the borough can play a role in delivering. To find out, how you as an individual, business or a community can play your part, see here for more information. [Lambeth’s Climate Action Plan | Lambeth Council](#). An impact and monitoring framework is currently under development to enable tracking of progress towards the borough-wide goals. This will complement this Council’s annual emissions report and provide more detailed information on borough-wide progress towards becoming net-zero.

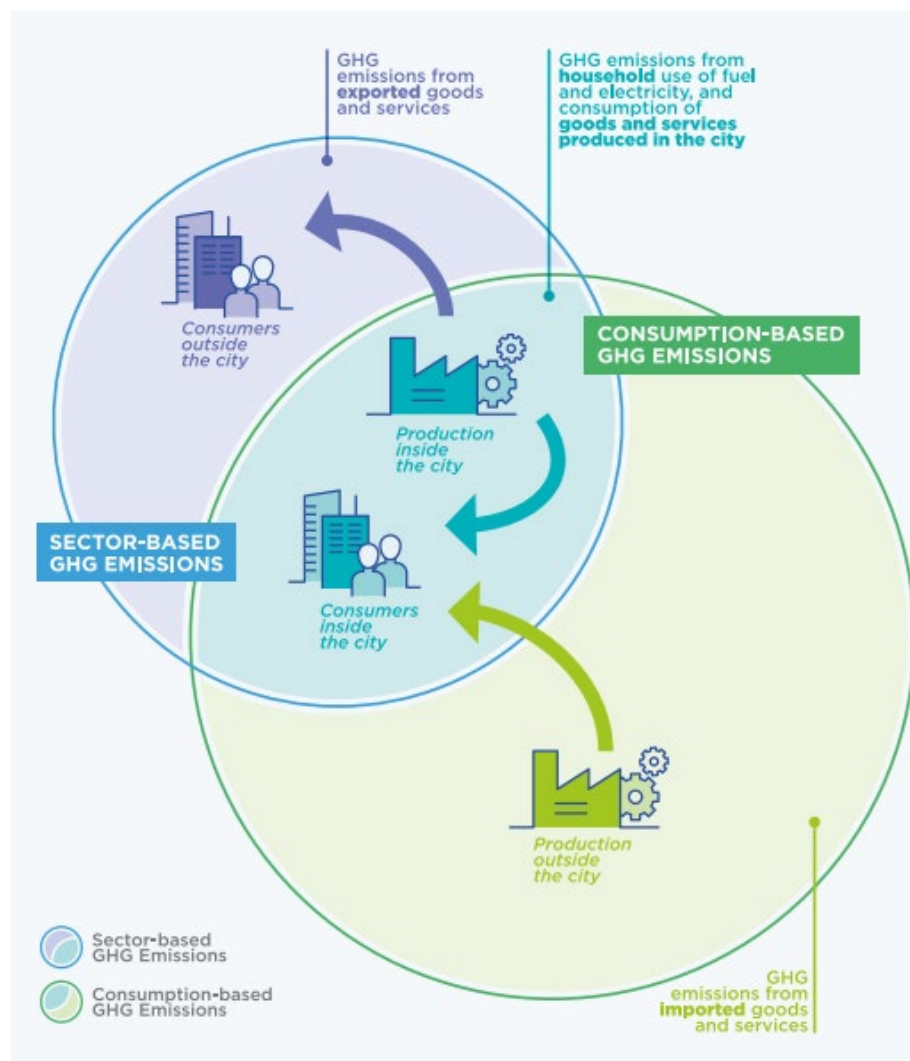
1.6 Lambeth consumption-based emissions

Goods and services consumed within one area drive carbon emissions outside of that area. For example, purchasing clothes in Lambeth, which have been imported into the UK, can be understood to drive emissions from cotton cultivation and garment factories overseas. These emissions can be referred to as “consumption-based” emissions.

Research commissioned in 2021 showed that total consumption-based emissions for Lambeth in 2018 were 2,713,000 tonnes of carbon dioxide equivalent, or 8.3 tonnes per person. This is significantly higher than ‘territorial’ emissions set out earlier in this document. Compared with other London boroughs, consumption emissions per capita in Lambeth are close to the median.

Please see the 2019–20 Lambeth Carbon Emissions Report for the full analysis of the research findings for Lambeth. The analysis can not be repeated each year because new data is not available, but we will review this in the mid-2020s.

Figure 8: Consumption-based emissions and sector-based emissions.
Source: C40 Cities (2018)



2 Lambeth Council Emissions



Lambeth Council Emissions

2.1 Categorising Lambeth Council emissions

For the purposes of this report carbon emissions associated with Lambeth Council's activities are grouped into five main categories.

1a. Council operations (council-operated assets and schools)

1b. Council operations (third party-delivered council services)

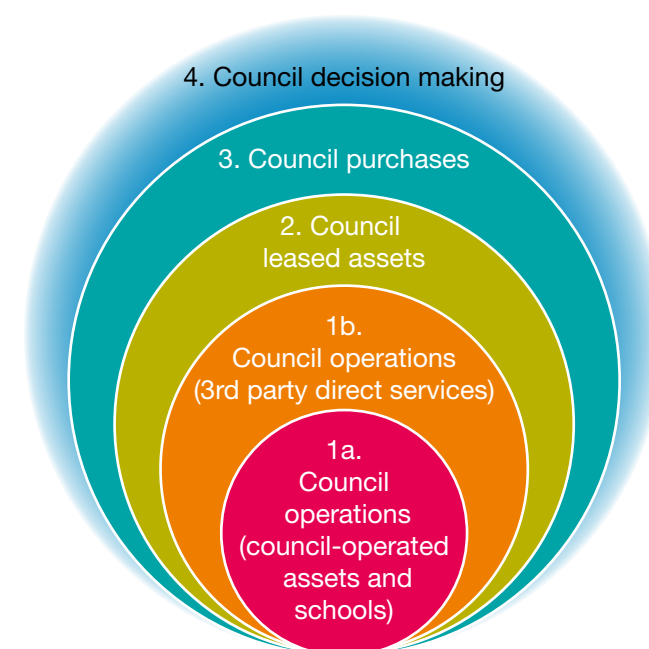
2. Council leased assets

3. Council purchases

4. Council decisions

As illustrated by Figure 9, these categories reflect the source of emissions, and their proximity to council operations. Category 1a describes direct emissions released from council-run services and schools², whereas Category 1b describes indirect emissions released from council services which are outsourced/delivered by a third-party. Category 4 describes emissions sources that are independent from the council, but which are affected by decisions that the council takes. Category 4 emissions are from activities that are neither undertaken nor commissioned by the council, and are therefore the most indirect emissions over which the council has an influence.

Figure 9: Lambeth Council emissions categories.



² This includes community schools (which are sometimes called local authority maintained schools) and foundation schools and voluntary aided schools. It does not include academies, free schools and private schools, which are independent from the local authority. Academy schools which occupy council property are considered council leased assets.

Table 1 provides examples of emissions sources within each category, and summarises the quality of the emissions data the council has access to in each category. This list is not exhaustive.

To enable consistency and comparability across local authorities, Lambeth Council is also reporting its carbon emissions according to the widely used international accounting tool, the Greenhouse Gas

Protocol, using the Greenhouse Gas Accounting Tool developed by the Local Government Association (LGA). For more information see [Annex 2](#).

Table 1: Lambeth Council emission category examples

Category		Examples	Emissions data
1. Council operations	a. Council-operated assets and schools	<p>Lambeth Town Hall, Civic Centre and other council offices</p> <p>Lambeth parks buildings and facilities</p> <p>Community schools, foundation schools and voluntary schools</p> <p>Libraries</p> <p>Lambeth owned and operated vehicles</p> <p>Communal areas of council housing estates</p> <p>Lambeth lampposts</p>	Data is available for most operated assets and some schools
	b. Third party-delivered council services	<p>Leisure centres run by contractor</p> <p>Transport emissions from a waste contractor</p> <p>Transport emissions from contracted taxi service for social care</p> <p>On-site emissions from construction contractor</p> <p>Communal and office areas of council estates which are managed by a Tenant Management Organisation</p> <p>Repairs and maintenance service</p> <p>Accounting, legal, auditing, and other consulting services</p> <p>Other ancillary services</p>	<p>Data is available for leisure centres and transport emissions from waste services</p> <p>No data is routinely recorded from other third-party delivered services</p>

Category	Examples	Emissions data
2. Council leased assets	<p>Residential units of council homes</p> <p>The council's voluntary and commercial property portfolio</p> <p>Academy schools occupying council property</p>	<p>No data is routinely recorded from most council homes or the council's commercial/voluntary property portfolio</p> <p>Data is available for emissions from communal heating systems</p>
3. Council purchases	<p>Embedded emissions in construction materials purchased by the council and its contractors</p> <p>Embedded emissions in IT equipment purchased by the council and its contractors</p>	<p>Non-specific data is recorded for council purchases of stationery, furniture, equipment and electrical goods. The data is not robust enough to give a reliable emissions figure</p>
4. Council decisions	<p>Transport and energy emissions arising from developments granted planning permission, over which the council has some influence within frameworks determined at the London and UK-wide level</p> <p>Transport emissions influenced by the provision of transport infrastructure/transport planning</p> <p>Emissions from the treatment of waste generated by Lambeth residents</p> <p>Emissions from Lambeth Council staff travel into work</p>	<p>Data is available for waste treatment</p> <p>No data is recorded for other categories</p>

2.2 Emissions from council operations

2.2.1 Council operated assets and schools



For April 2020 to March 2021, reported greenhouse gas emissions for Lambeth Council operated assets and schools were approximately 14,338.1 tonnes (14.39 ktCO₂e). This is approximately 1.6% of the emissions for Lambeth borough, as reported above. Emissions from council-operated assets reduced by 9.7% in 2020–21 compared 2019–20.

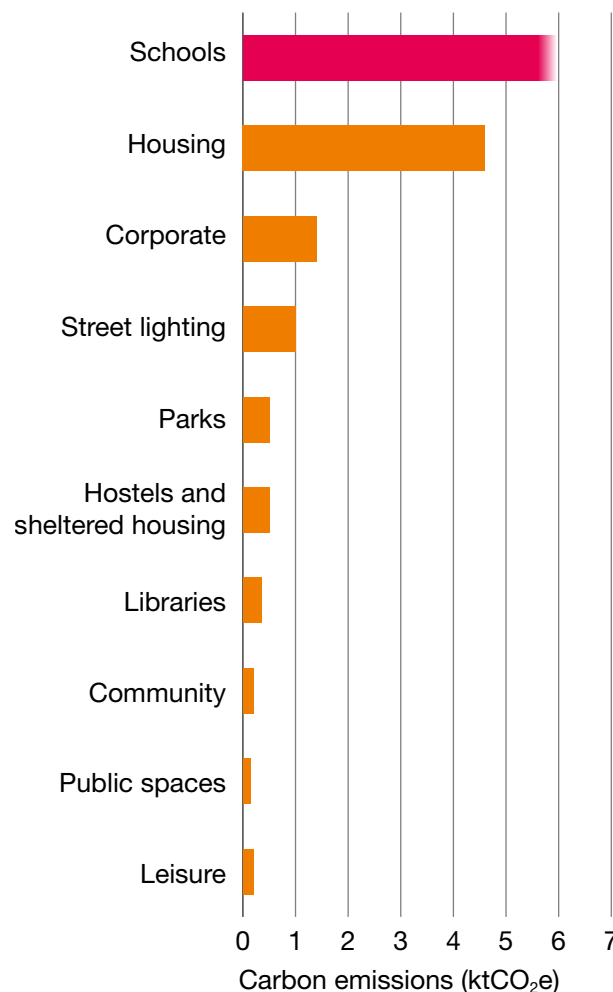


As illustrated by Figure 10, the largest single source of emissions in this category was electricity and gas use in schools. The council has emissions data for 64, council operated, foundation and voluntary-aided schools out of a total of 78 in the borough.³



Energy use in the communal areas of council residential estates and estate offices occupied by council staff, largely electricity used to power lighting, was the second largest source of emissions.^{xiii}

Figure 10: Lambeth Council emissions for operated assets and schools (ktCO₂e)^{xiv}



BOX 4: YEAR-ON-YEAR COMPARISON

Emissions reduced by 9.7% in 2020–21. Here is a snapshot of some of our buildings:

Building	2019–20 emissions tCO ₂ e	2020–21 emissions tCO ₂ e	% Change
Town Hall, Civic Centre, and residential block (communal system)	1070	1156	+8.1 %
Pest control office	19	20	+5.2 %
Brixton Tate Library	79	52	-34.0 %
West Norwood Cemetery and Crematorium	130	150	+13.3 %
Falmouth House communal areas	71	59	-17.0 %
Lambeth Walk day centre	39	44	+12.7 %
Tooting Bec Gardens hostels	130	84	-35.5 %

Lambeth Town Hall and Civic Centre are part of a district heating system that includes two residential and commercial complexes. The emissions increase across the system is a result of occupancy of the residential blocks increasing in 2020-21, combined with increased domestic energy consumption associated with Covid-19 lockdowns. The Town Hall and Civic Centre remained open. Libraries were closed during lockdowns, and so decreased by around a third. The cemetery and crematorium remained open, with increased activity and emissions resulting from excess mortality associated with the pandemic. Hostels remained open with reduced occupancy. Our pest control office emissions saw a increase, as a result of increased gas and electricity consumption.

³ Schools are responsible for their own utilities. Not all schools provided details of their energy consumption to the council.

Table 2. Changes in emissions from 2019–20 to 2020–21 for council operated buildings, excluding schools.

Department	2019–20 emissions ktCO ₂ e	2020–21 emissions ktCO ₂ e	% Change
Parks, Community, Leisure & Public Spaces	0.78	0.78	-0.2 %
Corporate	1.24	1.40	+13.1 %
Hostels	0.73	0.46	-37.3 %
Housing	4.89	4.58	-6.4 %
Libraries	0.42	0.29	-29.7 %

Hostels saw the greatest decrease in emissions from 2019–20, closely followed by libraries. Buildings in both of these departments were closed for some of the year and operating at reduced capacity at other times.

Emissions from council houses and council leased properties are classified as “leased assets” and reported in [Section 2.3](#).



Apart from the incompleteness of the schools’ data, we are confident that reported emissions capture the majority of council-owned and -operated assets. However, there remain a number of gaps, for example, most buildings where the council is a tenant such as Waterloo Library. The council will endeavour to record these sources in subsequent emissions reports.

See [Annex 1](#) for a list of the largest emitters in the council’s estate in each sector.

2.2.1.1 Schools

The council is responsible for funding capital works and maintenance in community schools (sometimes called local authority maintained schools) and in foundation and voluntary schools. The council has a central role and responsibility for decarbonising the council schools, and so their emissions are reported alongside council operated assets. Private schools, academies and free schools are independent from the council, and so their emissions are not reported in this section.

In 2020–21 reported emissions from Lambeth-funded schools were 5.6 ktCO₂e. As noted above, this is based on 64 of 78 schools reporting, so the actual figure will be higher. In 2021, Lambeth Council secured £6.65m of government funding to invest in the decarbonisation of Lambeth schools, and emission reductions from these works should be captured in future reports.

Operation of schools at a reduced capacity or complete closure of schools throughout lockdowns in 2020–21 is likely to be the main cause of emissions reductions in this category.

2.2.1.2 Council operated vehicles

In 2020–21, total emissions from council owned and operated vehicles were 306 tonnes. 83% of these emissions were from diesel and the rest from petrol with a small contribution (3% from EVs).

BOX 5: PUBLIC SECTOR DECARBONISATION SCHEME

In 2021, Lambeth council secured over £8 million grant funding to decarbonise its non-residential buildings, one of the highest awards received by any London borough through the Government’s Public Sector Decarbonisation Scheme (PSDS). Through 2021 and 2022, these funds have been deployed alongside council resources to decarbonise 21 schools, five libraries, Brockwell Hall and a community centre. Installed measures include air source heat pumps, solar photovoltaic power, energy efficiency measures like insulation and LED lighting, and power upgrades. Emissions savings from this PSDS work won’t be realised for reporting purposes until the 2021/22 and 2022/23 financial year reports. The council has also undertaken a major exercise of stock condition surveys and energy audits to put it in the strongest possible position to access future central government grant and aims to embark on further ambitious works to retrofit its buildings, subject to available funding.

See [Table 3](#) for a comparison between 2019–20 and 2020–21. The estimated emissions decrease from 2019–20 to 2020–21 is 9%.⁴

This is due to the COVID-19 lockdowns experienced in 2020–21. Lambeth parks remind open to provide essential services for residents to carry out exercise to improve mental and physical wellbeing. Although Lambeth parks remained open, the work carried out within these parks switch from the normal day to day maintenance regimes to a response service where items within the park were taken in and out of service depending on the current lockdown levels. For example, playgrounds were put in and out of service during the period, sports facilities were also taken out of use during some of the lockdown. Therefore, the service requirements changed over this period of time, which contributed to a reduced use in fuel, and a small contribution (3%) from electric vehicles. This section does not include emissions from third-party operated vehicles (e.g.

waste collection services, or taxi contracts) which are discussed in [Section 2.2](#).

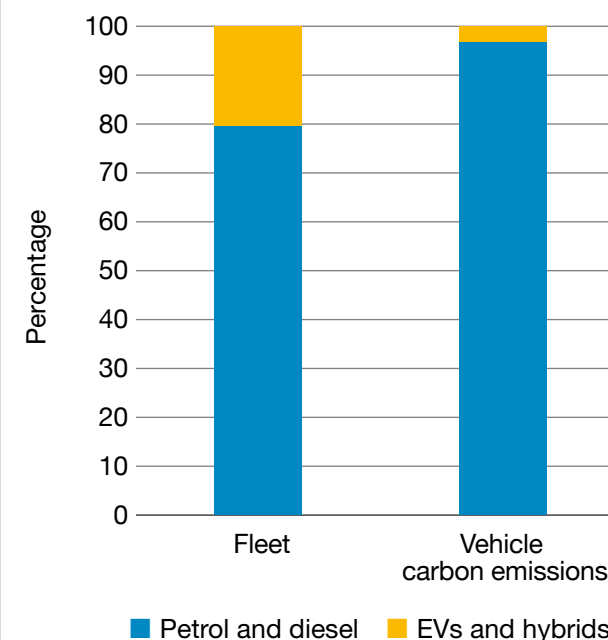
In April 2021, the council owned or leased 33 electric vehicles, five hybrid and 147 fuel vehicles. To achieve our target of being carbon neutral by 2030, the fleet will need to become entirely electric. The council is investing in EV charging infrastructure roll out across Lambeth.

As [Figure 11](#) shows, petrol and diesel vehicles generate significantly higher emissions than electric and hybrid. As the grid decarbonises, operational emissions from electric vehicles will decrease further.

2.2.2 Third-party delivered services

In 2021 the council adopted new policy to require all contractors for new contracts valued over £100k to report on their carbon emissions from contract delivery. A formal reporting system to input and retrieve this data is not yet in place, and therefore

Figure 11: Council-operated vehicle fleet composition and vehicle type emissions.



it is not possible to present third-party emissions data in this report. The council is working on the development of this system, and will endeavour to make this system operational by 2023.

As of 2022, the council is requiring all third party contractors to provide carbon emissions as part of regular reporting.

Case studies are provided on page 21 of emissions from third-party delivered services.

Table 3. Comparison between 2019–20 and 2020–21 vehicle emissions for Lambeth Council.

Department	2019–20 emissions tCO ₂ e	%	2020–21 emissions tCO ₂ e	%	% Change
Diesel	261	78	252	83	-3.4 %
Unleaded	66	20	43	14	-34.8 %
Hybrids and EVs	9	3	10	3	-16.5 %
Total	336		306		-8.9 %

⁴ Emissions for vehicles were underreported in the 2019–20 report, as the parks diesel single refuel data was incomplete. An estimated corrected figure is 336 tCO₂e.

Contractor Emissions Case Studies



Maintenance Contracts:

Lambeth operates maintenance contracts to ensure that our gas, water, and electrical systems are looked after. Emissions from these contracts in 2020–21 were 98.7 tCO₂.

Data is not available for previous years.

Emissions from our communal gas and water systems contract for the south of the borough were 72 tonnes of CO₂ in 2020. The contractor drove a total of 341,487 miles, which is nearly the same distance as our commercial waste collection fleet. The fleet comprised of 32 vehicles, only two of which were hybrids, and none were fully electric. Emissions in 2020 from our communal gas and water systems contract for the north of the borough were 17 tonnes of CO₂. Our contractor drove a total of 78,141 miles around Lambeth. Emissions in 2020 from our electrical works contract for the north of the borough were 9.7 tonnes of CO₂.



School to Home Transport Services:

In Lambeth, we have a contract that provides SEND school to home transport services. Emissions from this contract in 2020–21 totalled at 32.5 tCO₂.

Data is not available for previous years.

Our contractor drove a total of 139,257.4 miles in 2020–21, with a fleet comprised of 27 vehicles, with Euro 6 engines, weighing 3.5 - 7.5 tonnes. None of these vehicles were hybrid or fully electric.



Leisure Centres:

Eight of Lambeth's leisure centres and facilities are operated by Greenwich Leisure Limited. In 2020–21, emissions from these buildings totalled 2.49 ktCO₂e. This is a 20% reduction from 2019-20 (3.12 ktCO₂e), driven largely by closures associated with lockdown.

Lambeth's leisure centres consume large amounts of energy for heating water and space and for lighting. If all leisure centres and facilities were a council-operated asset, they would be the third highest emitting category of all council buildings after schools and housing. Therefore, emissions from council operated assets will increase as leisure services are brought back in-house in 2023.

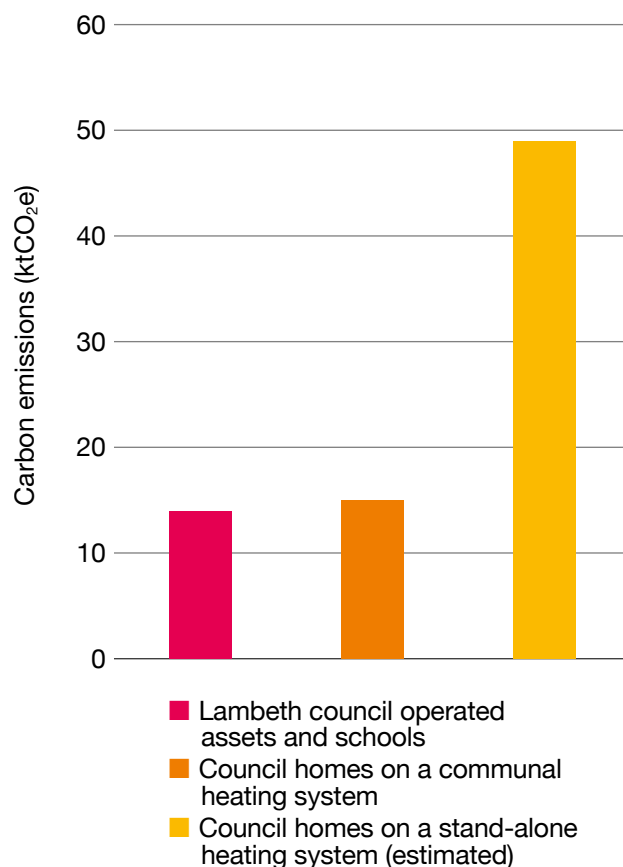
2.3 Council leased assets

Lambeth Council owns approximately 24,000 council homes, and is the proprietor of approximately 500 non-residential properties, including office space rented to commercial, voluntary and community organisations. These emissions sources are outside of the council's direct control, but the council has responsibility for their mitigation. The council does not capture data on the energy consumption of tenants, other than residential units that are served by a communal heating system for which the council is responsible.⁵

2.3.1 Council homes on a communal heating system

The council records data on energy consumption in council homes where a communal heating system is in place and served by the grid. In 2020–21, these sites were responsible for 15,390 tonnes of greenhouse gas emissions (15.39 ktCO₂e). This constitutes approximately 50 estates comprising over 300 blocks, with over 5,000 residential units. A proportion of these residential units are “leasehold properties” (e.g. those under Right to Buy leases) that are not managed by the council but share a heating system.

Figure 12: Emissions from council homes compared to council operated assets (ktCO₂e)



BOX 6: RETROFIT SHOW HOME

One of the largest sources of carbon emissions in Lambeth is energy use in the home by owner occupiers. Our own research, as well as that produced by Citizens' Advice, indicates that one of the most significant barriers to homeowners investing in energy efficiency measures is lack of knowledge, understanding, information, and advice. To help address this, the council is developing a Net Zero Show Home with guided tours, so that residents will be able to see low carbon technologies up close and experience the benefits of a net zero property first-hand. The net zero show home is expected to be completed in early 2023.

⁵ It is not possible to disaggregate energy use from heating residential units on a communal energy system, from energy use from the heating communal areas and on-site offices.

2.3.2 Council homes on a stand-alone heating system

As a landlord, the council has a responsibility to work with tenants to upgrade properties to improve their energy efficiency and introduce renewable and low carbon power and heating measures. However, the council does not have data for the emissions from council homes on stand-alone heating systems, as tenants are responsible for paying energy bills.

Assuming that the emissions profile of the average council home with a stand-alone heating system is equivalent to the emissions of the average Lambeth domestic property, total emissions would be approximately 48.97 ktCO₂e.^{xv} As illustrated by [Figure 12](#), estimated emissions from all council homes are more than 3 times larger than emissions from Lambeth council operated assets, and therefore reducing these emissions must be a priority in the council's efforts to reach net zero on its own estate.

If emissions from all council and leasehold homes are included as “council” emissions, then we estimate council emissions would have been approximately 9% of Lambeth borough's total emissions in 2020–21.

2.4 Council purchases

Most goods that are purchased have carbon emissions associated with their “life-cycle” – their production, transport, use and disposal. For example, the production of steel results in emissions from mining of raw materials like coal and iron ore, emissions from the production process in furnaces, emissions from transportation of steel products, and end-of-life emissions from disposal/recycling. These emissions can be understood to be “embedded” or “embodied” in products. Embedded emissions can be larger or smaller depending on the sustainability of the production process.

When Lambeth Council or its contractors purchase goods, the council is indirectly responsible for the emissions embedded in those goods. The council can mitigate these emissions by limiting the purchase of goods where possible and ensuring that goods which are purchased are produced in lowest impact way.

At present, Lambeth Council does not monitor the emissions embedded in purchased goods. A complicating factor is that there is no widely adopted methodology for calculating or reporting emissions embedded in various products which could consistently be applied across all council procurement. We are working with other London boroughs to establish the best approach for accounting for these emissions in future.

BOX 7: SOCIAL HOUSING DECARBONISATION FUND

As part of a national consortium, Lambeth secured funding to retrofit 42 council properties to net zero carbon from the SHDF Demonstrator. The innovative whole house retrofit approach will externally insulate the properties, install solar panels, and replace the heating and cooking equipment with low carbon alternatives. From the next wave of SHDF, working with a local housing association, Metropolitan Thames Valley Housing (MTVH), Lambeth secured £4.2million of funding to improve the energy efficiency of 982 socially rented homes in the borough. The work will include measures such as installing cavity wall, internal wall, loft, or underfloor insulation, draughtproofing, window or door replacements and, where appropriate, installation of solar panels. On top of energy savings for residents, the home upgrades are expected to reduce the borough's overall CO₂ emissions by 1,000 tonnes a year. Lambeth intends to scale up our retrofit programme by accessing as much available government funding as possible.

However, at this point we have roughly estimated that emissions from directly purchased stationery, furniture, electrical goods and equipment in 2020–21 to be in the order of 2,800 tCO₂e. This is nearly 10x the emissions from our directly owned or leased vehicles.

2.5 Council decision making

There are multiple emissions sources which are influenced by council decision making, but over which the council does not have direct control, or which the council is not directly responsible for. This includes, but is not limited to, the methods used to treat municipal waste, which is a decision taken by Lambeth Council on the treatment of waste generated by people who work, live and visit Lambeth; and emissions from the construction and use of new developments, over which Lambeth council has influence as a Local Planning Authority (LPA).

2.5.1 Waste disposal emissions

Emissions from the disposal of waste are complicated to attribute. According to the “polluter pays principle”, manufacturers and retailers producing and selling the products and packaging that ultimately enter the waste stream should take responsibility for their end-of-life impacts. The purchasing and disposal practices of households and organisations have a big influence on the quantities and types of waste generated. And local authorities, by determining whether waste goes to incineration, recycling, landfill or other, have a big influence on emissions from the waste disposal process. Lambeth Council is working actively

with other London boroughs to establish the most accurate, reliable and useful way to account for waste treatment emissions.

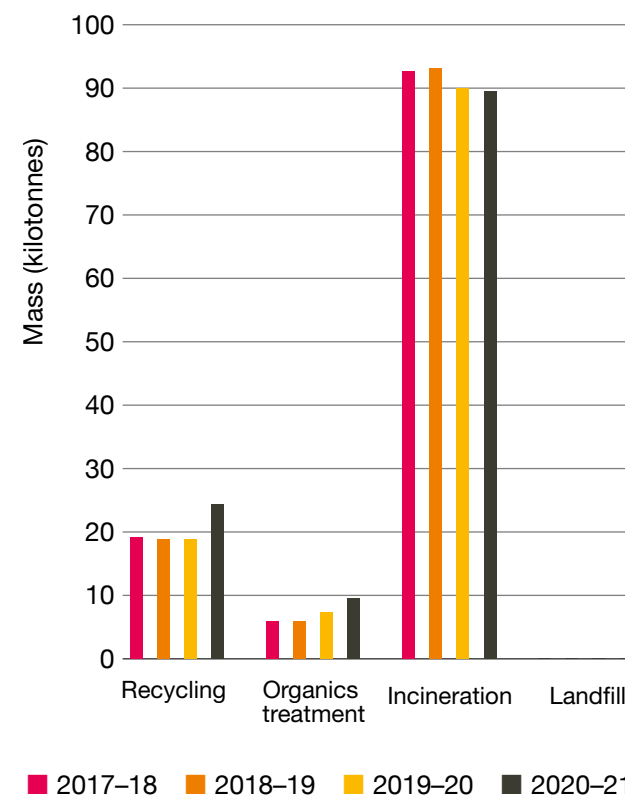
The DESNZ and SCATTER data cited in this report only capture emissions from waste disposal facilities located within the reporting borough. As Lambeth’s waste is largely treated outside of the borough,^{xvi} its emissions are not properly reflected in borough-wide data. Therefore, for the purposes of this report, the “Emissions Performance Standard (EPS) Ready Reckoner” is used, developed by the Greater London Authority (GLA) to allow for the comparison of emissions from London boroughs’ waste management.

Commercial and Household recycling and waste collections were maintained throughout covid lockdowns with minimal disruption. However, many businesses were closed so there were fewer commercial collections at points throughout the year. The bulky waste collection service and Household Waste and Recycling Centres were suspended for a short period throughout 2020–21.

By weight, the majority of Lambeth’s waste is disposed of through incineration (or ‘energy from waste’), with smaller amounts disposed of through recycling and organics treatment. Lambeth does not send any waste to landfill.

Since 2017, Lambeth has increased the amount of waste sent to recycling and organics treatment, and decreased the waste sent to incineration (see Figure 13). This indicates an improvement in sustainability of the borough’s waste treatment.

Figure 13. Weight of waste sent for different treatment types from Lambeth borough between 2017–2021



2.5.1.1 Emissions from incineration

According to the Ready Reckoner, emissions in 2020–21 from waste disposal through incineration were 11,614 tCO₂e. This represents a decrease of 12.4% from 2019–20 levels, which is a huge difference compared to the change from the prior year (which saw a 1.2% increase). The Ready Reckoner methodology takes into account emissions considered to be offset by energy from waste (the use of electricity and heat generated from the incineration process, in place of electricity and heat that would have otherwise been generated from fossil fuels).^{xvii}

2.5.1.2 Emissions from recycling

The Ready Reckoner applies a ‘negative’ emissions principle for recycling processes to represent emissions saved by reducing the need for new resources later. According to this methodology, Lambeth avoided 15,392 tCO₂e by sending waste for recycling in 2020–21 through avoidance of the emissions which would otherwise be needed to produce new products from new materials. Put another way, emissions from waste disposal through recycling were -12,355 tCO₂e. This compares to -12,355 tCO₂e for 2019–20. The limitation of this approach is that it obscures the actual carbon emissions released through the recycling process.

The methodology proposed by DESNZ is based on the approach that only transport emissions to the facility would be “Lambeth” emissions, and that

the emissions from treatment processes should be accounted for by the Waste Disposal Authority (the waste treatment facility). However, figures are reported here in acknowledgement of the fact that Lambeth Council has a responsibility to reduce emissions from the waste treatment process as the council determines how the borough’s waste is treated.

2.5.1.3 Emissions from organics treatment

According to the Ready Reckoner, emissions in 2019–20 from organics treatment were -304 tCO₂e, again using the negative emissions principle. This compares with -256tCO₂e in 2018–19. The difference is due to an increase in the amount of waste sent for organics treatment. The Ready Reckoner methodology for organics treatment takes into account emissions saved from avoided production of compost and fertiliser, and emissions considered to be offset by energy generation (as with incineration above).

2.5.2 Business travel

The council has several services which require staff to travel as part of their work using their own vehicles. For example, social care visits to residents’ homes. This is classed as a scope 3 emission. An estimate for business travel emissions for 2020–21 is 4.9 tonnes of CO₂e. This should be taken as a rough approximation as the data required to calculate emissions accurately has not been gathered to date. The council will work to collect this for emissions reporting in future.

2.5.3 Staff travel

Lambeth Council employs over 3,000 members of staff who work at sites spread across the borough including the Brixton Civic Centre and Town Hall, and libraries and other social care and community buildings. Staff commuting to and from work is a source of emissions over which the council has influence as an employer through the provision of cycling facilities, behaviour change initiatives and flexible working arrangements.

The council runs a staff travel survey to collect data on travel behaviours, which allows derivation of an estimate of average emissions from employee travel to and from work over one year. The survey showed that commuting created approximately 22 tCO₂e post-COVID, when all staff are working more frequently or all of the time from home. This is less than 1/40th of what it was in 2019, mainly driven by fewer journeys completed per week as staff work from home. In some cases staff are now based further away from the office and so emissions will be larger from a longer commute despite only being taken once or twice per week.

ANNEXES



ANNEX 1: Largest emitters in council-owned buildings by sector

Council-operated assets

Table 4. The top ten emitting corporate buildings in 2020–21, compared to 2019–20.

	Site	2020–21 Total consumption (kWh)	2020–21 Total Emissions (tCO ₂ e)	2019–20 Total consumption (kWh)	2019–20 Total Emissions (tCO ₂ e)	% Change
1	Town Hall, Civic Centre and Residential Block	5,621,708.6	1,156.2	4,795,406.5	1,070.0	8.1
2	Phoenix House	322,769.6	81.7	461,041.0	130.5	-37.4
3	Olive Morris House ⁶	301,690.0	59.7	937,093.9	234.1	-74.5
4	Pest Control Office	95,800.1	19.5	88,902.0	18.5	5.5
5	Rommany Road Depot Office	62,512.0	15.8	66,115.0	18.3	-13.7
6	Blue Star House ⁷	29,262.0	7.4	94,251.0	22.2	-66.6
7	Nullsupt Office Staff Yard	18,997.0	4.8	<i>No Data</i>	<i>No Data</i>	<i>No Data</i>
8	The Press	13,003.0	3.3	22,985.0	6.4	-48.3
9	Kennington Park Dc (1 Othello Close)	12,694.0	3.2	13,510.0	3.7	-14.2
10	Market Inspectors Office	1,702.2	1.7	7,795.0	2.2	-21.3

⁶ The Council sold Olive Morris House and will be leasing back the ground floor only, hence the reduction in energy use.

⁷ This reduction is due to the impact of COVID-19 related lockdowns, with staff working from home. The Council served notice to terminate our leases in Feb 2021, so after that the floors were gradually emptied.

Table 5. The top ten emitting communal areas of housing properties in 2020–21, compared to 2019–20.

	Site	2020–21 Total consumption (kWh)	2020–21 Total Emissions (tCO ₂ e)	2019–20 Total consumption (kWh)	2019–20 Total Emissions (tCO ₂ e)	% Change
1	Ethelred Estate	951,043.3	239.5	855,629.0	237.3	0.9
2	Southwyck House	499,748.5	126.5	433,893.0	110.9	14.1
3	Roupell Park Estate	268,711.3	68.0	240,934.0	61.6	10.5
4	Lambeth Towers	248,878.1	63.0	243,539.0	67.5	-6.7
5	William Bonney Estate	235,452.0	59.6	346,670.0	96.1	-38.0
6	Falmouth House	232,951.7	59.0	256,382.0	71.1	-17.0
7	Spurgeon Estate	195,255.0	49.4	<i>No Data</i>	<i>No Data</i>	<i>No Data</i>
8	Calidore Close	190,594.0	48.3	165,688.0	45.9	5.0
9	Hurley House	166,199.0	42.1	164,520.0	45.6	-7.8
10	South Island Place	163,686.8	41.4	177,252.0	49.2	-15.7

Table 6. The top emitting properties in the libraries department in 2020–21, compared to 2019–20.

	Site	2020–21 Total consumption (kWh)	2020–21 Total Emissions (tCO ₂ e)	2019–20 Total consumption (kWh)	2019–20 Total Emissions (tCO ₂ e)	% Change
1	Clapham Library	314,877.7	68.6	494,545.6	108.7	-36.9 %
2	Brixton Tate Library	269,862.7	52.2	377,938.5	79.1	-34.0 %
3	Black Cultural Archives	203,297.4	44.0	250,924.3	57.6	-23.5 %
4	Carnegie Library	198,689.5	39.1	273,356.0	57.6	-32.1 %
5	Streatham Tate Library/Tudor Hall	187,193.5	37.4	217,547.5	44.9	-16.8 %
6	Minet Public Library	77,989.0	19.7	94,921.0	26.3	-25.0 %
7	Durning Library	86,598.0	16.8	121,933.3	23.1	-27.5 %
8	South Lambeth Tate Library	73,779.6	14.0	96,039.3	17.8	-21.6 %

Table 7. The top ten emitting properties in the parks and public spaces department in 2020–21, compared to 2019–20.

	Site	2020–21 Total consumption (kWh)	2020–21 Total Emissions (tCO ₂ e)	2019–20 Total consumption (kWh)	2019–20 Total Emissions (tCO ₂ e)	% Change
1	West Norwood Cemetery (Norwood Road)	787,711.1	149.7	675,053.1	129.8	15.4
2	Lambeth Cemetery and Crematorium	599,666.5	116.2	764,239.5	147.8	-21.4
3	Brockwell Hall	250,304.6	47.4	271,997.8	52.8	-10.2
4	Lambeth Area D Parking Meters	151,007.4	38.2	151,668.0	42.1	-9.1
5	Max Roach (Open Space Opposite 234 Brixton Road)	69,637.0	17.6	75,785.0	21.0	-16.1
6	Larkhall Park Garden and Pond	58,776.0	14.9	58,198.0	16.1	-7.8
7	Supers Lodge and Mess Room ⁸	60,351.1	11.6	6,689.0	1.9	525.3
8	Ruskin Park	43,556.0	11.0	42,917.0	11.9	-7.3
9	Circus Site ⁹	40,009.0	10.1	21,985.0	6.1	66.2
10	Bowls Pavilion - Clapham West Side	35,893.0	9.1	45,404.0	12.6	-27.8

⁸ Supers Lodge is leased to Poppy's Funerals in Lambeth Cemetery and the mess room was much more heavily used as the grounds team was relocated there.

⁹ The Circus Site electricity is for event use, with the increase representing a growth in use for events.

Table 8. The top ten emitting schools in 2020–21, compared to 2019–20.

	Site	2020–21 Total consumption (kWh)	2020–21 Total Emissions (tCO ₂ e)	2019–20 Total consumption (kWh)	2019–20 Total Emissions (tCO ₂ e)	% Change
1	Fenstanton Primary School	1,673,927.3	351.6	1,848,963.5	416.3	-15.5
2	Bishop Thomas Grant	1,170,079.0	236.3	1,877,907.6	396.1	-40.4
3	Woodmansterne School	1,098,729.0	218.7	<i>No Data</i>	<i>No Data</i>	<i>No Data</i>
4	La Retraite RC Girls School	1,030,572.0	212.7	1,225,801.0	275.1	-22.7
5	Saint Gabriels College	858,190.3	180.2	913,214.4	201.1	-10.4
6	Elm Court School	814,670.8	162.1	790,529.3	162.8	-0.4
7	Sunnyhill Primary and Nursery School	779,722.6	158.85	630,718.1	142.0	11.9
8	Norwood School	650,035.0	155.97	<i>No Data</i>	<i>No Data</i>	<i>No Data</i>
9	Richard Atkins Primary School	689,954.9	131.35	646,936.8	127.9	2.7
10	Wyvil School	649,376.0	127.95	<i>No Data</i>	<i>No Data</i>	<i>No Data</i>





ANNEX 2: Emissions reporting by Scopes 1, 2 and 3

Carbon emissions are categorised as one of three ‘scopes’. Scope 1 emissions are defined as direct emissions from owned or controlled sources, scope 2 emissions as indirect emissions from the generation of purchased energy, and scope 3 as all other indirect emissions that occur in Lambeth’s value chain.^{xviii}

Table 9 shows Lambeth Council’s carbon emissions broken down by scope. Most sources of scope 3 emissions have been omitted as we do not capture the vast majority of our contractors’ carbon footprint at present. We have, however, included transmission and distribution losses, which are an unavoidable scope 3 emission from use of electricity from the grid.

The LGA tool for 2020–21 council emissions can be found as an addendum to this report.

Table 9. Carbon emissions (tCO₂e) by scope and source.

Emissions source	Scope 1	Scope 2	Scope 3
 Gas use in buildings	5,487.8		
 Electricity use in buildings and street lighting		7,888.2	665.4
 Owned or leased vehicle use	295.7	9.5	0.8
 Water consumption in buildings			40.69
Total	5,783.5	7,897.7	706.9

ANNEX 3: Methodology and limitations

Methodology

Detailed methodology for DESNZ data as reported in sections 1.1 and 1.4 is [available here](#).

To estimate emissions for the council, DESNZ conversion factors for 2020 were applied to activity data obtained from across the organisation including gas and electricity usage, water supply and sewage and distance travelled by different vehicles.

Data improvement

Emissions reporting is a developing area of work. Each year, a number of areas are identified where there is a need to focus on expanding data collection or improve the quality of data in order to support the council, residents and stakeholders to make more informed decisions on decarbonisation. Teams across the council are collaborating to put in place policy and data collection methods that will enable incorporation of more data in subsequent years.

The council is still building a comprehensive data set to allow full understanding of in-house emissions. Although the council has begun to gather data on emissions from commissioned services delivered by contractors, there is more work to be done, and this will be an area of focus for next year's emissions reporting. From 2022,

suppliers will be required to report carbon emissions from delivery of their contract using the existing contract management platform, which will vastly improve the ease of collection and provide a starting point for refinement and analysis of data.

Further work is also needed to measure and report on emissions sources outside of the council's direct control, but where the council has primary responsibility for mitigation. This includes, for example, emissions from energy use in council homes and properties commercially leased by the council. It is anticipated that the housing stock condition surveys taking place in 2022/23 will improve the council's data in this area. It will also be necessary to agree on a methodology to improve the data on the council's commercial properties, as it is known that they contribute a significant proportion of scope 3 emissions due to the number of properties which fall into this category.

Off-grid housing properties services by non-gas fuels such as oil are not included as the data was not available for this year, but it is anticipated that it will be included in future years' reporting.

The council has manually collected energy consumption data for 60 schools out of a total of 72 in the borough. This means that the actual figure for emissions will be higher than reported here.

Electric vehicle mileage has been estimated based on available data. It is not a requirement, however, for operatives to record the mileage of a vehicle when serviced, and so estimates are approximate. EVs contribute a very small quantity of total emissions.

2021/22 Data Improvement Areas.

Area	Description	Next step
Schools	Emissions from gas and electricity use in community, foundation and voluntary aided school properties. The data for 2020/21 exists but is incomplete.	Agree methodology for obtaining data exhaustive of all schools' emissions.
Supply chain emissions	Emissions from activities related to delivery of a contract with Lambeth Council, by contractors.	Establish reporting protocol via the existing contract management system, for reporting for 2022/23. Guidelines for all contract managers including a requirement to report carbon emissions have been produced.
Commissioned services	Emissions from activities related to delivery of a contract with Lambeth Council, by contractors.	Establish reporting protocol via the existing contract management system, for reporting for 2022/23. Guidelines for all contract managers including a requirement to report carbon emissions have been produced.
Council influenced emissions – housing	Emissions from gas and electricity use in residential areas of council housing (communal areas are already included).	Agree methodology.
Council influenced emissions – commercial property	Emissions from gas and electricity use in properties leased to commercial tenants.	Agree methodology.

Endnotes

- i See 2005 to 2019 UK local and regional CO₂ emissions. DESNZ, 2021.
<https://data.gov.uk/dataset/723c243d-2f1a-4d27-8b61-cdb93e5b10ff/emissions-of-carbon-dioxide-for-local-authority-areas> Accessed May 2021.
- ii Global Carbon Atlas. <http://www.globalcarbonatlas.org/en/CO2-emissions> Accessed May 2021.
- iii Calculated using Atmosfair Calculate Flight Emissions tool <https://www.atmosfair.de/en/offset/flight/> and Carbon Footprint Flight Carbon Footprint Calculator <https://calculator.carbonfootprint.com/calculator.aspx?tab=3> . Accessed May 2021.
- iv Average CO₂ emissions from new cars and vans. <https://www.eea.europa.eu/highlights/average-co2-emissions-from-new-cars-vans-2019>
- v See Our World in Data. <https://ourworldindata.org/food-choice-vs-eating-local>. Accessed May 2021.
- vi 78% of UK households own a car compared to 42% of Lambeth households. See Percentage of households with cars by income group, tenure and household composition: Table A47. Office for National Statistics, 2019. <https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/datasets/percentageofhouseholdswithcarsbyincomegrouptenureandhouseholdcompositionuktablea47>
- vii See Energy efficiency of housing in England and Wales. Office for National Statistics, 2020.
<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/articles/energyefficiencyofhousinginenglandandwales/2020-09-23>
- viii Analysis for Lambeth by AECOM from The National Energy Efficiency Data-Framework (NEED).
- ix See English Housing Survey 2019 to 2020: headline report. UK Ministry of Housing, Communities & Local Government, 2020.
<https://www.gov.uk/government/statistics/english-housing-survey-2019-to-2020-headline-report>
- x A reduction from circa 700 MtCO₂e in 2005 to circa 90-95 MtCO₂e, with the residual emissions in aviation, agriculture, industry and other sectors offset through land-use and “engineered removals”. See Figures 1.2 and 5.9, Net Zero: The UK’s contribution to stopping global warming. UK Committee on Climate Change, May 2019.
<https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>
- xi See Analysis: Why the UK’s CO₂ emissions have fallen 38% since 1990. Carbon Brief, 2019.
<https://www.carbonbrief.org/analysis-why-the-uks-co2-emissions-have-fallen-38-since-1990>. Accessed July 2021.
- xii See Page 19, Reducing UK emissions Progress Report to Parliament. UK Committee on Climate Change. June 2020.
<https://www.theccc.org.uk/wp-content/uploads/2021/06/Progress-in-reducing-emissions-2021-Report-to-Parliament.pdf>
- xiii For residential assets, all gas consumption was attributed to communal heating systems for residential units, and all electricity consumption was attributed to communal and office areas. This disaggregates council-operated assets from council-leased assets.
- xiv Building categories include emissions from energy and gas use, with water use reported separately.
- xv Calculated by dividing DESNZ domestic emissions in Lambeth for 2019 equally among 140,288 dwellings in Lambeth in 2019, of which 24,179 are local authority owned (MHCLG <https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants>) of which approximately 19,000 are on standalone heating systems.
- xvi See Western Riverside Waste Authority (WRWA) <https://wrwa.gov.uk/waste-authority/>

xvii See EPS Ready Reckoner Guidance. Eunomia Research and Consulting for the Greater London Authority, May 2019.

<https://www.eunomia.co.uk/reports-tools/eps-ready-reckoner-greenhouse-gas-guidance/>

xviii See Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. <https://ghgprotocol.org/standards/scope-3-standard>

